GREEN INFRASTRUCTURE

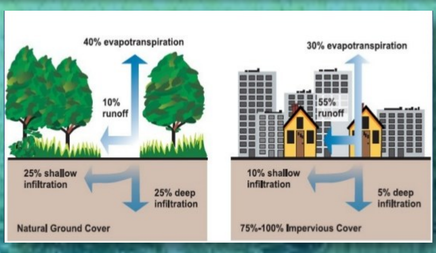
WATER WEEK
IN KENTUCKY

What is a Green Infrastructure?

Green infrastructure is a collection of practices that are designed to address stormwater runoff using structures and processes that mimic the natural elements in the water cycle. Green infrastructure reduces and treats stormwater at its source while delivering economic, environmental, and social benefits.

Stormwater runoff is a major cause of water pollution in urban areas. When rain falls on our roofs, streets, and parking lots in cities and their suburbs, the water cannot soak into the ground as it should. Stormwater drains through gutters, storm sewers, and other engineered collection systems and is discharged into nearby water bodies. The stormwater runoff carries trash, bacteria, heavy metals, and other pollutants from the urban landscape. Higher flows resulting from heavy rains also can cause erosion and flooding in urban streams, damaging habitat, property, and infrastructure.

When rain falls in natural, undeveloped areas, the water is absorbed and filtered by soil and plants. Stormwater runoff is cleaner and less of a problem. Green infrastructure uses vegetation, soils, and other elements and practices to restore some of the natural processes required to manage water and create healthier urban environments. At the city or county scale, green infrastructure is a patchwork of natural areas that provides habitat, flood protection, cleaner air, and cleaner water. At the neighborhood or site scale, stormwater management systems that mimic nature soak up and store water.



Going from GREY to GREEN

Green Infrastructure in KY

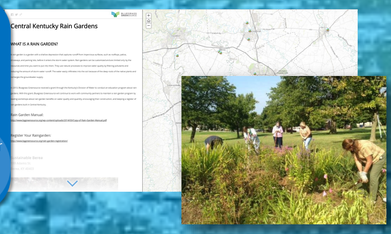
Many communities in KY have been using Green infrastructure to help control stormwater and protect water quality. Check out the examples below to learn more!

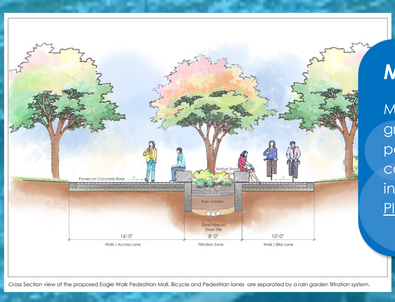
Locust Trace AgriScience Farm

The Locust Trace AgriScience Farm is a state of the art high school that uses everything from green roofs to artificial wetlands to help collect, store, and utilize stormwater. Rainwater collection systems significantly reduce how much municipal water needed for the school's needs. Click the picture to learn more!

Rain Gardening KY Style

Bluegrass Greensource's Central Kentucky Rain Garden Map shows you where folks have used native species to create beautiful gardens that soak up stormwater, helping to filter out pollutants and prevent problems with erosion and flooding. Look to see if there are any in your area! Already have a rain garden? Register it here and show off your work!





Cross Section view of the proposed Eagle Walk Pedestrian Mall. Bicycle and Pedestrian lanes are separated by a rain garden filtration system.

Morehead State University

Morehead State University has incorporated green infrastructure across its campus, including permeable pavers, rain gardens, and water catchment systems. To learn more about green innovations at MSU take a look at their Master Plan.

Green Roofs Across KY

Green roofs help reduce the amount of impermeable surfaces in urban areas, capturing rain water . They also provide significant energy savings for city buildings. You can find them on schools, hospitals, commercial buildings, and homes across the Commonwealth.

McConnell Springs Floating Island Wetlands

Floating Wetland Islands are an innovative treatment system for use in stormwater retention ponds as a way to treat pollutants. The McConnell Springs project is using the islands to help absorb excess nutrients from the water, reducing the amount of algae blooming in the park's pond.

Kentucky Division of Water
300 Sower Blvd.
Frankfort, KY 40601